Frequency of Ocular Complications and its Effective Factors in Type 1 Diabetic Patients Referred to Eye Clinic of Imam Reza Hospital from September 2017 to August 2018

Abstract

Background and objective: Visual complications are one of the major health problems in diabetic patients, especially in undevelopedand developing countries, due to the lack of similar studies in Ardabil province, this study was conducted with the aim of evaluating the frequency of ocular complications and its effective factors in a sample of patients with type 1 diabetes in Ardabil.

Methods: In this one-year cross-sectional study, all type 1 diabetic patients referred to the internal clinic of Imam Khomeini Hospital during September 2017 to August 2018 were referred to the ophthalmology clinic of Imam Reza Hospital and were examined for the presence or absence of ocular complications. On arrival at the eye clinic, the necessary clinical tests and the eye examinations were performed for all the patients and the required information was entered into the pre-prepared checklists. Patients' eyes were examined by an eye specialist.

Results: A total of 66 type 1 diabetic patients with the mean age of 25.6 ± 10.8 years (range 5 to 49 years) were studied that the number of males was slightly higher (54.5% vs. 45.5%). The most common ocular complications were lens opacity, persistent corneal epithelial defect, diabetic retinopathy, staphylococcal blepharitis, and meibomian gland dysfunction that are seen in 54.5%, 27.2%, 10.6%, 6.1%, and 3% of patients, respectively. Mean HbA1c was higher among patients with diabetic retinopathy compared to patients without retinopathy. The frequency of retinopathy was higher among male patients compared to female patients (13.9% vs. 6.7%), among patients older than 20 years compared to younger patients (14.3% vs. 0%), and among patients with a disease duration of more than 10 years compared to patients with a shorter disease duration (20% vs. 4.9%).

Conclusion: The present study showed the types of ocular complications among a sample of patients with type 1 diabetes in Ardabil that the lens opacity, persistent corneal epithelial defect, and retinopathy were the most common ones. Retinopathy was associated with longer disease duration and higher age. These findings highlight the need for regular screening of ocular complications in patients with type 1 diabetes, especially in cases who are at higher risk, namely patients older than 20 years of age and patients with a disease duration of more than 10 years.

Key Words: Type 1 diabetes, retinopathy, cataract.